ABSTRACT

A rotary absolute signal A is obtained that shows the absolute rotary position at each revolution of the motor based on the output obtained from a rotary encoder 5 affixed to the motor output shaft 2a, and a linear absolute signal B is obtained that shows the absolute linear position per linear stroke pitch along an axial direction 3a of the output shaft 3 based on an output obtained from a linear absolute sensor 6 which is a magnetic induction type sensor and is mounted on the actuator output shaft 3. The distance Lp by which the output shaft 3 is moved per motor revolution and the detection pitch Sp of the linear absolute sensor are set at different values, so in the period until the values become equal, at no point of the output shaft movement is the same absolute signal combination produced. Therefore, the combination of the signals can be used to enable absolute linear position detection over a long stroke.